UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA,

Plaintiff,

and

NATURAL RESOURCES DEFENSE COUNCIL, INC. AND SIERRA CLUB,

Intervenor-Plaintiffs,

v.

DTE ENERGY COMPANY AND DETROIT EDISON COMPANY,

Defendants.

Civil Action No.
2:10-cv-13101-BAF-RSW

Judge Bernard A. Friedman

Magistrate Judge R. Steven Whalen

DEFENDANTS' REPLY BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON THE 2002 NSR REFORM RULES

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Relevant Federal Rules

40 C.F.R. § 52.21(a)(2)(iv)
40 C.F.R. § 52.21(r)(6)

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

CAA	Clean Air Act
EPA	United States Environmental Protection Agency
MACR	MICH. ADMIN. CODE R.
MDEQ	Michigan Department of Environmental Quality
NOV	Notice of Violation
NRG	NRG Energy, Inc.
NSR	New Source Review
PSD	Prevention of Significant Deterioration
SIP	State Implementation Plan

Missing from the Government's brief is any discussion of the actual text of the new NSR rules that control here. Those new provisions reformed what was "[p]erhaps the most complicated and frustrating aspect of PSD," MDEQ PSD Workbook at 2-1, by making clear that projects will be judged not by disputes over projection methodology (the rules prescribe none) or the accuracy of an operator's pre-construction projection, but by whether the project actually causes a significant emissions increase. These new rules, adopted by EPA in 2002 and approved into the Michigan SIP in 2006, state in the clearest terms that a project is a major modification for a regulated pollutant "if it causes both . . . [a] significant emissions increase [and] [a] significant net emissions increase." MICH. ADMIN. CODE R. ("MACR") 336.2802(4)(a); 40 C.F.R. § 52.21(a)(2)(iv). Conversely, a project "is ***not*** a major modification if it ***does not cause*** a significant emissions increase." *Id.* (emphases added). As to the role of projections, the rules state unequivocally that they do not determine whether a major modification has occurred: "***Regardless of any such preconstruction projections***, a major modification results if the project ***causes*** a significant emissions increase and a significant net emissions increase." 40 C.F.R. § 52.21(a)(2)(iv)(*b*) (emphases added); MACR 336.2802(4)(b).

The Government's interpretation here turns the new rules upside down. Instead of the simplified, common sense regime reflected in the plain language of the rules that uses actual data to confirm or refute the validity of pre-construction projections and determine whether a major modification has occurred, the Government offers a system that would allow it to employ a team of expert witnesses — here, ***six*** emissions increase experts who have filed ***twelve*** reports — to second guess the operator's projection, regardless of actual operation of the unit and what the actual data show. In other words, the Government would read the new rules to mean the converse of what they actually say. A major modification would occur if a post hoc "preconstruction" projection cobbled together by a platoon of experts shows a significant emissions increase,

regardless that the project did not, in fact, result in such an increase, and the environment was never exposed to more pollution. Thus, a project that "does not cause a significant emissions increase" — and does not cause ***any*** deterioration of air quality — could nonetheless be deemed a modification requiring a permit to prevent "significant deterioration" that will never occur.

The Government cannot ignore the plain language of the Michigan SIP and its own rules. "It has become axiomatic that an agency is bound by its own regulations. The fact that a regulation as written does not provide [an agency] a quick way to reach a desired result does not authorize it to ignore the regulation or label it 'inappropriate.'" *Panhandle E. Pipe Line Co. v. FERC*, 613 F.2d 1120, 1135 (D.C. Cir. 1979) (*citing Serv. v. Dulles*, 354 U.S. 363 (1957)). The Court should reject the Government's litigation position, apply the Michigan rules as written and approved by EPA, and grant Detroit Edison's motion, thereby ending this case.

STATEMENT REGARDING UNDISPUTED MATERIAL FACTS

The Government attempts to manufacture two disputed issues of fact, neither of which are material and both of which are wrong. First, the Government claims that it is unclear whether anyone from Detroit Edison actually met with MDEQ before sending its outage notification. But the testimony that EPA cites confirms rather than refutes this fact. *See* Opp'n Br. Ex. 8 at 221. Second, the Government notes that certain preparatory work took place before the outage began. That fact is undisputed as well. Whether that work means Detroit Edison "began actual construction" before March 13, 2010 is a legal question. As explained below, a utility like Detroit Edison does not "begin actual construction" through this type of preparatory work.

ARGUMENT

I. The NSR Reform Rules Clarify and Enhance Pre-Construction Source Obligations.

According to the Government, the plain language of the 2002 NSR Reform Rules "changes the fundamental structure" of the NSR permitting program by eliminating pre-project

NSR review. But the 2002 NSR Reform Rules — the language of which the Government assiduously avoids discussing — do no such thing.[1] As always, operators are required to determine before undertaking a project whether that project will cause a significant emissions increase. And if an operator concludes that a project ***will*** cause a significant emissions increase, it must apply for a permit or take a permit limit. MACR 336.2810-2818.

The 2002 NSR Reform Rules continue to call on operators to address NSR applicability prior to construction. But in place of a system that lacked defined rules, the NSR Reform Rules substitute a common sense method calling for an emission projection before construction and confirmation of that projection thereafter. *See* Opening Br. at 6-13 (describing pre-construction obligations found in MACR 336.2818(3) and 40 C.F.R. § 52.21(r)(6)(i)). These provisions are new — they are not in the 1980 or 1992 NSR Rules. *Compare* 40 C.F.R. § 52.21(r)(6) (2010) *with* 40 C.F.R. § 52.21(r)(6) (2001). They add welcome clarity to the question of what an operator must do to perform and document its applicability determination and alleviate "[p]erhaps the most complicated and frustrating aspect of PSD." MDEQ PSD Workbook at 2-1.

As explained in the Opening Brief, Detroit Edison did not claim it was exempt or immune from this pre-project "source obligation." It instead fully complied with each of these pre-construction steps. Having done so, Detroit Edison could lawfully commence construction in

[1] The Government suggests that its reading of the text of the CAA itself overrides the plain text of the governing rules. Opp'n Br. at 5-6, 14. While the plain language of the CAA is entirely consistent with the plain language of the rules, *see infra* n.2, the focus must be on the Michigan and EPA rules that define the legal standards and reflect MDEQ's and EPA's interpretation of the Act, not that of the Government's counsel. *See* 42 U.S.C. § 7471 ("[E]ach . . . implementation plan shall contain ... such other measures as may be necessary, as determined under regulations promulgated under this part, to prevent significant deterioration."). For NSR, EPA promulgates minimum standards in 40 C.F.R. pt. 51, and the states implement them in their SIPs. This case is governed by Michigan's PSD rules and the similar Part 51 nonattainment rules which apply pending approval of the Michigan nonattainment rules. The Government is required to apply the rules as promulgated, not as its litigators wished they were. *See U.S. v. Cinergy Corp.*, 623 F.3d 455, 457-59 (7th Cir. 2010).

full compliance with Michigan's NSR rules.

II. Actual Data Confirms or Refutes the Source's Applicability Determination.

The 2002 NSR Reform Rules include new provisions that specify that post-construction data will provide the measuring stick against which the reasonableness of pre-project projections will be judged. Under these new rules, after a project, an owner or operator must "monitor the emissions . . . that could increase as a result of the project," and "calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years." *See* MACR 336.2818(3)(c); 40 C.F.R. § 52.21(r)(6)(iii). And in the specific case of an "existing electric utility steam generating unit," the owner/operator "shall submit a report" to the MDEQ "within 60 days after the end of each year . . . setting out the unit's annual emissions" for that year. MACR 336.2818(3)(d); 40 C.F.R. § 52.21(r)(6)(iv).

Critically, it is these data that dictate whether a major modification has occurred. The new rules state in unequivocal terms that "a project is a major modification for a regulated new source review pollutant if it causes both . . . [a] significant emissions increase [and] [a] significant net emissions increase," MACR 336.2802(4)(a); 40 C.F.R. § 52.21(a)(2)(iv); and a project "is ***not*** a major modification if it ***does not cause*** a significant emissions increase." *Id.* (emphases added). As to the role of pre-construction projections, the rules state unequivocally that they do not determine whether a major modification has occurred: "***Regardless of any such preconstruction projections***, a major modification results if the project ***causes*** a significant emissions increase and a significant net emissions increase." 40 C.F.R. § 52.21(a)(2)(iv)(*b*) (emphases added); MACR 336.2802(4)(b).

So in sum, an operator that projects no increase in emissions caused by a project will be judged by what actually happens. If there is no emissions increase, there can be no major modification and therefore no violation for constructing a project without a permit.

III. EPA's Litigation Position Ignores the New Language in the 2002 NSR Reform Rules and Complicates Rather Than Simplifies NSR Applicability.

The Government asserts that "[t]he relevant regulations make clear that initial liability turns on 'preconstruction projections,'" with the consequence that "[i]f emissions should have been expected to increase as a result of the project, NSR is triggered." Opp'n Br. at 11 (citing MACR 336.2802(4)(b)). As to liability, the rules simply do not say what EPA wishes they did.

A. Pre-Construction Projections Do Not Determine Liability.

To establish liability for constructing a major modification without a permit, EPA must show that an operator like Detroit Edison has undertaken a major modification. The rules unambiguously state that this question does not turn on preconstruction projections, but rather on whether the project actually causes an emissions increase. A project "is ***not*** a major modification if it ***does not cause*** a significant emissions increase." MACR 336.2802(4)(a); 40 C.F.R. § 52.21(a)(2)(iv) (emphases added). And the very rule EPA cites explicitly states that preconstruction projections are not determinative of whether a major modification has occurred. *See* MACR 336.2802(4)(b) ("***Regardless of preconstruction projections***, a major modification results if the project ***causes*** a significant emissions increase and a significant net emissions increase.") (emphases added). If, as EPA argues, whether there is a major modification turns on an expert's post hoc calculation of "projected actual emissions" — a defined term in the rules — the regulations would actually use that term. The absence of any reference to projected actual emissions in this context refutes EPA's position. *See U.S. v. Stauffer Chem. Co.*, 684 F.2d 1174, 1186 (6th Cir. 1982) ("Ordinarily, the use of different language creates an inference that Congress meant different things.").

The closest the Government comes to engaging the text of the rule is its reference to the general definition of "major modification," which pre-dates the 2002 rules and defines a major modification as one that "would result" in a significant emissions increase. Opp'n Br. at 11. The

Government posits that the use of the subjunctive "would result" indicates that initial liability turns on whether emissions "should have been expected to result from a change." *Id.* But the Government tellingly makes no attempt to show where "would result" has been defined to mean "should have been expected to result," or to explain why this grammatical leap is otherwise consistent with the Michigan NSR rules. In fact, the plain language of the rules governing NSR applicability specifically instructs that "[r]egardless of preconstruction projections," whether a project is a major modification depends on whether it "causes" or "does not cause" a significant emissions increase.[2] These specific provisions defining when a project is a modification (or not) are consistent with and give content to the general definition of "major modification." To the extent there is any conflict between these provisions, the specific and more recently-enacted rules take precedence. *U.S. v. Perry*, 360 F.3d 519, 535 (6th Cir. 2004) ("[A] more specific provision takes precedence over a more general one.").

As EPA explained when promulgating the rules in 2002, post-project reporting would provide a check against faulty projections and, more importantly, would determine whether a major modification had actually occurred: "If for some reason the projection is not accurate, the required tracking of emissions ... following the changes will determine whether a significant emissions increase ***has actually occurred***. Where the change is found to be a major modification, despite the projections made by the source, the reviewing authority will be expected to proceed with the process of subjecting the source to the major NSR requirements." EPA, *Technical Support Document for the Prevention of Significant Deterioration and Nonattainment Area New Source Review Regulations* (Nov. 2002) at I-5-28, *available at* http://www.epa.gov/NSR/actions.html#2002 (emphasis added). So EPA in 2002 specifically recognized that projections

[2] As for the CAA, it defines "modification" as a change that "increases the amount any air pollutant emitted," ***not*** as a change that "would" or "should be expected to increase emissions." 42 U.S.C. § 7411(a)(4).

may prove inaccurate. But it then explained that speculation about the accuracy of a projection is ***not*** the basis for determining whether a significant increase in emissions and thus a major modification has occurred. This confirms the plain language of the rules, which state clearly that actual data from required emissions tracking determine liability.

Michigan's "PSD Workbook" confirms this feature with respect to Michigan's EPA-approved NSR rules. In that guidance document, MDEQ explains what happens where a projection proves inaccurate and actual data shows an increase. MDEQ makes clear that errors in projection do not trigger liability:

> [These] circumstances . . . (i.e., actual emissions exceed [baseline actual emissions] by more than the significant threshold and differ from the projection) do not automatically constitute a violation of PSD. There are many legitimate circumstances under which this could occur. The most obvious is that business growth exceeds the projected growth rate. In this case, the fact that business turns out to be better than expected is not a violation of PSD. The growth, ***if it had been accurately projected***, would have resulted in excluded emissions and the conclusions of the original PSD applicability determination would not have changed. The submittal of this report will only trigger an evaluation of the circumstances to determine if a PSD violation may have occurred.

MDEQ PSD Workbook at 4-6 to 4-7 (emphasis added). So MDEQ, like EPA, confirms in its PSD Workbook that a disputed projection does not trigger liability. Instead, liability for constructing a major modification without a permit depends on whether, based on actual data, a significant increase in emissions has occurred. No such increase has actually occurred in this case.

B. No Court Has Addressed the New Rules.

The Government's brief suggests that courts have considered the new provisions in the 2002 NSR Reform Rules and have agreed with the Government's arguments. *See* Opp'n Br. at 13-14. In fact, ***none*** of the cases EPA cites involved the 2002 NSR rules. *See U.S. v. Ohio Edison Co.*, 276 F. Supp. 2d 829, 864, 869 (S.D. Ohio 2003) (applying 1980 rules with respect to Activities 2, 4-8, 10-11 and 1992 rules with respect to Activities 1, 3 and 9); *U.S. v. Cinergy Corp.*, 384 F. Supp. 2d 1272, 1277 (S.D. Ind. 2005) (explaining that it was applying 1980 rules);

U.S. v. Duke Energy Corp., No. 1:00CV1262, 2010 WL 3023517, *2 (M.D.N.C. July 28, 2010) (same); *U.S. v. S. Ind. Gas & Elec. Co.*, No. IP99-1692 C-M/F, 2002 WL 1629817 (S.D. Ind. July 18, 2002) (same).[3] Moreover, the Government cites those cases only for the unexceptional proposition that an operator must make an emissions projection before starting construction. Detroit Edison did just that and is not arguing the new rules relieve it from the obligation to do so.

The Government's reliance on *U.S. v. Xcel Energy, Inc.*, 759 F. Supp. 2d 1106 (D. Minn. 2010) is similarly misplaced. That case did not involve any analysis of the 2002 NSR Reform Rules. It instead addressed the scope of EPA's authority under CAA § 114 to request information from operators concerning proposed projects. EPA's case against Detroit Edison does not involve § 114 or an attempt to prevent a modification from occurring. The projects at issue have occurred, and the 2002 Rules state in unequivocal terms that whether those projects were major modifications will be judged by whether they actually cause an emissions increase.[4]

C. The Government's Litigation Position Is Not Entitled to Deference.

An agency's interpretation of its rules is entitled to deference only where the rules are ambiguous. *See Christensen v. Harris Cnty.*, 529 U.S. 576, 588 (2000). The rules here state unambiguously a project "is not a major modification if it does not cause a significant emissions increase." MACR 336.2802(4)(a); 40 C.F.R. § 52.21(a)(2)(iv). Second, deference does not apply to litigating positions that are no more than post hoc rationalizations. *See Akzo Nobel Salt,*

[3] The EPA Administrative Order on which EPA relies later in its brief also did not involve the 2002 rules. Opp'n Br. at 17-18 (citing *In re: Wisconsin Power & Light Columbia Generating Station*, Petition No. 11-2008-1 (EPA Oct. 8, 2009)). At the time of the projects discussed in that order, Wisconsin had not adopted the 2002 NSR Reform Rules, so the projects were governed by the Wisconsin SIP NSR rules, which are virtually identical to the pre-2002 EPA rules.

[4] EPA also argues that "DTE has developed unique policies with the express purpose of avoiding NSR scrutiny during the recordkeeping and reporting window" and then proceeds to grossly mischaracterize Detroit Edison's policies. *See* Opp'n Br. at 17. These tendentious arguments have no bearing on the plain language of the 2002 NSR Reform Rules, so Detroit Edison will not devote space to responding here.

Inc. v. Fed. Mine Safety & Health Review Comm'n, 212 F.3d 1301, 1304-05 (D.C. Cir. 2000) EPA's litigating position contradicts its own guidance, reflected in its responses to comments and the preamble for the 2002 rules discussed above and in the Opening Brief, and therefore is not entitled to deference. *See U.S. v. Ala. Power Co.*, 372 F. Supp. 2d 1283, 1306 (N.D. Ala. 2005) ("EPA admits, as it must, that it has not spoken with one voice, or a consistent voice, or even a clear voice, on this issue.").

IV. EPA Has Not Alleged — Either in Its NOV or its Complaint — That Detroit Edison's Pre-construction Notification Letter Was Untimely or Insufficient.

In its opposition, EPA alleges for the first time in this case that Detroit Edison's outage notification was either insufficiently specific or untimely. If EPA believes that Detroit Edison violated Michigan's regulations with respect to the content or the timing of the notice, it was required to say so in its NOV. As this Court already has ruled, EPA is jurisdictionally barred from pursuing claims that were not properly specified in its NOV. *See generally* Dkt. No. 104 (granting Dkt. No. 81). But even if jurisdictionally proper, the argument is without merit.

The 2002 NSR Reform Rules specify what information the operator "shall document and maintain" before "beginning actual construction of the project." Detroit Edison's outage notification contained all of the required information. It described the projects; it identified Monroe Unit 2 as the emissions unit that would be affected by the projects; it identified the applicability test as "actual-to-projected-actual" test; it provided its calculations of baseline actual emissions, the projected annual emissions and the amount of any increase in emissions over baseline levels that could be excluded as unrelated to the projects; and it explained why Detroit Edison was excluding based on market demand and other factors unrelated to the project. Opening Br. Ex. 1 at Ex. 2 (Dkt. No. 107-2). This is all that the rules require.[5] MACR 336.2818(3)(a).

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[5] EPA complains that Detroit Edison's notice was insufficiently specific. Opp'n. Br. at 18-19. But it can point to no provision in Michigan's rules that imposes a specificity require-

(Continued . . . .)

As to timing, the Government notes that Detroit Edison had taken a number of steps to prepare for the Outage before it sent the notification letter, but it never explains how this activity means that Detroit Edison "[began] actual construction" as that term is defined in Michigan's rules. *See* MACR 336.2801(e). In fact, none of those activities constitute the "initiation of physical on-site construction activities on an emissions unit which are of a ***permanent nature***." *Id.* (emphasis added). An operator cannot initiate activities of a "permanent nature" with respect to boiler tube replacement without shutting down the unit to gain access to these components inside the boiler, and it is undisputed that Monroe 2 was not shut down for the outage until March 13, 2010. *See, e.g., Hempstead Cnty. Hunting Club v. Sw. Elec. Power Co.*, No. 08-CV-4038, 2008 WL 2705570, at *1 (W.D. Ark. July 10, 2008). Moreover, the Government specifically alleged in its Complaint that Detroit Edison sent the notification the day before beginning the projects, confirming that there is no dispute on this issue. Compl. ¶ 47 (Dkt. No. 1).

CONCLUSION

For these reasons, Detroit Edison's motion for summary judgment should be granted.

Respectfully submitted this 25th day of July, 2011.

By: /s/ F. William Brownell

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ment with which Detroit Edison failed to comply. Indeed, as EPA itself notes, the notification is similar in form to notices that Detroit Edison has used previously without objection from MDEQ. *Id.* at 19; Opening Br. Ex. 2 at ¶¶ 15-17. And the notice is no more specific than other notices EPA itself has found acceptable. In 2005, NRG Energy, Inc. submitted a notice that, in more general terms than Detroit Edison used here, stated that NRG did not consider an emissions increase projected to occur to be attributable to a boiler tube project. Ex. 3. EPA acknowledged the notification and noted that based on the information contained in it, "neither a permit nor a determination of nonapplicablity from EPA is required before undertaking the project." Ex. 4.

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CERTIFICATE OF SERVICE

I hereby certify that on July 25, 2011, the foregoing **DEFENDANTS' REPLY BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON THE 2002 NSR REFORM RULES** was served electronically only on the following attorneys of record in accordance with an agreement reached among the parties:

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/s/ F. William Brownell

UNITED STATES DISTRICT COURT
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DEFENDANTS' REPLY BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON THE 2002 NSR REFORM RULES

APPENDIX A:
INDEX OF EXHIBITS

Ex. 3	Letter from John Tooley, NRG Oswego Harbor Power Operations Inc., to Steven Riva, U.S. EPA Region 2 (Mar. 10, 2005)
Ex. 4	Letter from Steven Riva, U.S. EPA Region 2, to John Tooley, NRG Oswego Harbor Power Operations Inc. (May 16, 2005)

EXHIBIT 3
TO DEFENDANTS' REPLY BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON THE 2002 NSR REFORM RULES

NRG Oswego Harbor Power Operations Inc.
261 Washington Boulevard
Oswego, New York 13126-1751
Telephone: (315) 349-2220
Fax: (315) 349-2248

March 10, 2005

Mr. Steven C. Riva
US Environmental Protection Agency
Region 2
290 Broadway
New York, NY 10007-1866

VIA: Facsimile

Subject: Condenser Tube Replacement
Oswego Harbor Power
DEC ID #7-3512-00030/23

Dear Mr. Riva:

NRG Energy, Inc. (NRG) is planning on doing work this month on Unit 5 of the Oswego Harbor Power Station in which it will re-tube the primary condenser. NRG has reviewed EPA's four-factor test for determining whether the condenser re-tubing project is a routine maintenance, repair or replacement activity that EPA excluded from the New Source Review (NSR) program requirements. Based on the four-factor test, NRG believes that the project is routine as it is performed frequently in the industry and it will not involve a capital expenditure. Nonetheless, NRG has undertaken an analysis of whether the project would result in a significant net increase in emissions. NRG's analysis concludes that it will not.

Pursuant to the final NSR rule published on December 31, 2002, NRG Oswego Harbor Power hereby provides notice of the condenser re-tubing project on Unit 5 and the emissions analysis conducted to determine whether the project will result in a significant net increase in emissions from Unit 5. This letter provides a description of the project, a description of how emissions were analyzed and the results of the emissions analysis.

Project Description

Oswego Harbor Power has determined that it is necessary to re-tube the Unit 5 condenser. The need for re-tubing the condenser is based on the discovery of a large number of center-bundle tubes with significant wall loss and the potential for catastrophic failure. The wall loss indications were discovered this summer after a routine eddy current test was conducted on the condenser. Further metallurgical testing on a tube sample indicated ammonia induced stress corrosion cracking in the OD of the tubes from ammonia attack. Unit 5 has used

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NRG

ammonia for pH control since the unit was constructed. Unit 5 operation has not been constrained in any way by the condenser, the project is being undertaken to prevent failure.

As the tubes with significant wall loss reside in the center of the tube bundles and the repair requires removal of all the tubes to get at them, NRG has determined that it is more efficient to replace all the tubes at this time. Additionally, the replacement tubes will be made of stainless steel instead of the original Admiralty brass to preclude reoccurrence of ammonia induced stress corrosion cracking. The walls, tube sheets, supports, water boxes and baffles will not be replaced.

Emission Unit Description

NRG's Oswego Harbor Power Station is located in the City of Oswego, New York on a 93 acre site, on the south shore of Lake Ontario. Unit 5 is a nominal 850 MW unit that fires #6 fuel oil as its primary fuel. Unit 5 began commercial operation in 1975.

Emission Calculations

In preparing the emissions analysis for Unit 5, NRG used the following assumptions. First, the SO_2 and NOx emissions data are based on continuous emissions monitoring data while the CO, VOC, PM and PM_{10} data are based on AP-42 factors.

The capacity projections and projected fuel used are based on NRG Power Marketing projections. Those projections are model results based on anticipated fuel costs, sales and operating plans. The condenser re-tubing was not an input to, or a factor in, these capacity and fuel use projections. The post-change unit output used for projecting emissions is unaffected by the condenser re-tubing. NRG's projections for Oswego Unit 5 model an increase in utilization over the baseline period, but only for one year (in Calendar Year (CY) 2008), and only due to an increase in market demand for that year.

Baseline Emissions Unit 5

Table 1 lists the baseline emissions. Annual baseline emissions (actual tons/yr) are the annual average of the 24- month period starting the 4th quarter of 2000 to the 3rd quarter of 2002, which is the highest heat input period in a consecutive 24-month period during the last 5 years of operation. NOx and SO2 annual tons are as reported by CEMS under 40 CFR

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NRG

Part 75. Particulates, VOC's, and CO mass tons are calculated based on AP 42 emission factors as reported on the 2002 emission statement submitted to the NYSDEC. These mass emissions were converted to emission rates (lb/mmBtu) and the baseline emissions (tons) were calculated.

Future Emissions Unit 5

Table 1 also lists projected emissions. Annual emissions for the maximum projected emissions period were calculated. The capacity projections and projected fuel use are based on NRG Power Marketing projections. Those projections are model results based on anticipated fuel costs, sales and operating plans. These projections show that CY 2008 has the highest projected fuel use so Table 1 only lists that calendar year. Note that the CY 2008 is the only year that capacity, fuel use and emissions are higher than the baseline period, and that condenser re-tubing does not have an effect on the projected heat input or emissions.

SO2 Post Change

SO2 emissions are based on the amount of fuel burned. SO2 emissions are projected to increase by approximately 178 tons/year in CY 2008 since NRG Power Marketing predicts an unrelated increase in the heat input and consequently, the amount of fuel burned, due to market demand. This increase is over the significant emissions increase threshold. However, there would be no emissions increase absent the projected increase in demand and the increase is not attributable to the condenser re-tubing.

NOx Post Change

NOx emissions are based on the amount of fuel burned and are also expected to increase. The NOx emissions increase of approximately 27 tons/year in CY 2008 is due to the heat input increase and the #6 fuel oil burned increase. The NOx increase is less than the NSR significant emissions increase threshold. However, there would be no emissions increase absent the projected increase in demand and the increase is not attributable to the condenser re-tubing.

Particulates Post Change

PM and PM10 emissions are expected to increase in CY 2008 due to the heat input and #6 fuel oil burned increase. PM and PM10 emissions are projected to increase by approximately 18 tons/year and 13 tons/year, respectively. The PM and PM10 increases are less than the NSR

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significant emissions increase thresholds. However, there would be no emissions increase absent the projected increase in demand and the increase is not attributable to the condenser re-tubing.

VOC Post Change

Non-methane hydrocarbons or Volatile Organic Compounds (VOC) emissions are solely based on the amount of #6 fuel oil burned. Because NRG Power Marketing predicts an unrelated increase in the amount of fuel burned, the VOC emissions increase by approximately 12 tons/year in CY 2008. The VOC increase is less than the NSR significant emissions increase threshold. However, there would be no emissions increase absent the projected increase in demand and the increase is not attributable to the condenser re-tubing.

CO Post Change

Carbon Monoxide emissions are solely based on the amount of #6 fuel oil burned. Because there is an increase in the projected heat input and fuel usage, the CO emissions will increase by approximately 77 tons/yr in CY 2008. The CO increase is less than the NSR significant emissions increase threshold. However, there would be no emissions increase absent the projected increase in demand and the increase is not attributable to the condenser re-tubing.

Significant Net Emissions Increase Calculation

As specified at 40 CFR 52.21(b)(41)(ii)(c), emissions due to an increase in market demand can be subtracted, or netted out, from the significant emissions increase calculation if:

The unit could have achieved the necessary level of utilization during the consecutive 24-month

1. period selected to establish baseline actual emissions; and
2. The increase is not related to physical or operational change(s) made to the unit.

Oswego Unit #5 was completely capable of reaching the projected level of utilization during the 24-month baseline period. It was not constrained in any way by the condenser during this, or any other period. Unit 5's operation was constrained only by market demands during this period. Furthermore, the increase is in no way related to the condenser re-tubing. Therefore, the entire increase in emissions projected for CY 2008 can be subtracted from the projected significant emissions increase, resulting in no significant net emissions increase relating to the condenser re-tubing project.

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NRG

Summary

The condenser re-tubing project at NRG Oswego Unit #5 will result in zero significant net emissions increase. NRG plans to begin the condenser re-tubing at Unit 5 on approximately March 15, 2005. NRG will submit information on the effects the outage work will have on actual emissions annually for five years, beginning with a report that will cover emissions from approximately April, 2005 to March, 2006, 12 months after NRG projects that the change will be complete.

If you have any questions about the information submitted with this letter, please do not hesitate to contact Tom Coates at (315) 349-2251.

Sincerely,

John Tooley
Regional Plant Manager

cc /w attachments:

T. Coates
M. Greenhalgh
R. LiCourt

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NRG

Table 1

Summary of Emission Calculations
For Oswego Unit 5

Pollutant	Baseline Emissions (Tons/Yr) Unit 5	Projected Actual Emissions Unit 5	Emission Increase from Baseline (Tons/Yr)	Threshold for Significant Emission Increase	Exceeds Threshold SHI (Y/N)
SO_2	2,226.10	2,404.23	178.13	40	Y
NO_x	336.62	363.56	26.94	40	N
PM	16.97	18.33	1.36	25	N
PM-10	12.07	13.04	0.97	15	N
CO	71.29	76.99	5.70	100	N
VOC	10.83	11.70	0.87	40	N
Pb	0.02	0.02	0.00	0.6	N
Total	2,673.90	2,887.87	213.97		

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Unit 5 Emission Factors

Unit 5 Baseline: Q4 2000 to Q3 2002

Baseline Heat Input =	8,671,108	MMBtu
Baseline Average HHV =	152,048	Btu/gal

SO2
The SO2 emission factor was taken from the average SO2 rates as reported in EDR to EPA.

Baseline SO2 Emission Factor	1.027	lb/MMBtu

NOx
The NOx emission factor was taken from the average NOx rates reported in EDR to EPA.

Baseline NOx Emission Factor	0.168	lb/MMBtu

PM from Stack Emissions
The filterable PM emission factor was calculated using AP-42. The emission factor in lb/1000 gal was then converted to lb/MMBtu using the baseline heating value of No. 6 fuel oil. A control efficiency of 93% was also used.

AP-42 Table 1.3-1 Factor =	9.19*S +3.22	lb/1000 gal
Baseline S% =	1.50	%
Control Efficiency =	93.0%	
Filterable PM Emission factor	1.1804	lb/1000 gal
Baseline Filterable PM Emission factor	0.0078	lb/MMBtu

PM10 from Stack Emissions
The filterable PM10 emission factor was calculated using AP-42. The emission factor in lb/1000 gal was then converted to lb/MMBtu using the baseline heating value of No. 6 fuel oil. A control efficiency of 93% was also used.

AP-42 Table 1.3-4 Factor =	6.61*S +2.16	lb/1000 gal
Baseline S% =	1.50	%
Control Efficiency =	93.0%	
Filterable PM10 Emission factor	0.84885	lb/1000 gal
Baseline Filterable PM10 Emission factor	0.0056	lb/MMBtu

CO
The CO emission factor was calculated using AP-42. The factor in lb/1000 gal was converted to lb/MMBtu using the baseline heating value of No. 6 fuel oil.

AP-42 Chp 1.1, Table 1.1-3 Factor =	5	lb/1000
Baseline CO Emission Factor =	0.0329	lb/MMBtu

Non Methane VOCs
The non methane VOC emission factor was calculated using AP-42. The factor in lb/1000 gal was converted to lb/MMBtu using the baseline heating value of No. 6 fuel oil.

AP-42 Table 1.3-3 Factor =	0.76	lb/1000 gal
Baseline VOC Emission Factor =	0.0050	lb/MMBtu

Lead
The lead emission factor was calculated using AP-42. The factor in lb/1000 gal was converted to lb/MMBtu using the baseline heating value of No. 6 fuel oil.

AP-42 Table 1.3-11 Factor =	1.51E-03	lb/1000 gal
Baseline Pb Emission Factor =	9.93E-06	lb/MMBtu

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NRG Oswego Power Unit 5 Annual Emissions

Baseline and Maximum Emissions are calculated using the emission factors in the previous sheet and the heat input. The heat input for the baseline is taken from Q4 2000 to Q3 2002 (taken as annual average). The projected heat inputs are estimated by NRG Oswego. The maximum heat input occurs in the year 2008. Therefore, this year was taken to be the maximum emissions.

	Pollutant	Units	Value	Increase from Baseline
Baseline Emissions (tons/year)	Heat input	mmBtu/yr	4,3[illegible]	-
	Sulfur Dioxide	ton/yr	2,226.10	-
	Nitrogen Oxides	ton/yr	336.82	-
	Particulate Matter	ton/yr	16.97	-
	Particulate Matter - 10	ton/yr	12.07	-
	Carbon Monoxide	ton/yr	71.39	-
	Nonmethane VOCs	ton/yr	10.86	-
	Lead	ton/yr	0.02	-
Maximum Projected Emissions (tons/year) 2008	Heat input	mmBtu/yr	4,682,486	346,534
	Sulfur Dioxide	ton/yr	2,404.23	178.13
	Nitrogen Oxides	ton/yr	363.50	26.94
	Particulate Matter	ton/yr	18.35	1.38
	Particulate Matter - 10	ton/yr	10.04	0.97
	Carbon Monoxide	ton/yr	76.09	4.70
	Nonmethane VOCs	ton/yr	11.70	0.87
	Lead	ton/yr	0.02	0.00
	TOTAL EMISSION INCREASE	ton/yr		213.67
2005 Projected Emissions (tons/year)	Heat input	mmBtu/yr	4,482,147	158,6[illegible]
	Sulfur Dioxide	ton/yr	2,306.50	80.40
	Nitrogen Oxides	ton/yr	348.74	12.16
	Particulate Matter	ton/yr	17.58	0.61
	Particulate Matter - 10	ton/yr	12.51	0.44
	Carbon Monoxide	ton/yr	73.66	2.67
	Nonmethane VOCs	ton/yr	11.23	0.39
	Lead	ton/yr	0.02	0.00
	TOTAL EMISSION INCREASE	ton/yr		96.56
2006 Projected Emissions (tons/year)	Heat input	mmBtu/yr	3,[illegible],878	(645,878)
	Sulfur Dioxide	ton/yr	1,791.73	(434.37)
	Nitrogen Oxides	ton/yr	270.94	(65.88)
	Particulate Matter	ton/yr	13.66	(3.31)
	Particulate Matter - 10	ton/yr	9.72	(2.35)
	Carbon Monoxide	ton/yr	57.38	(13.91)
	Nonmethane VOCs	ton/yr	8.72	(2.11)
	Lead	ton/yr	0.02	(0.00)
	TOTAL EMISSION INCREASE	ton/yr		(521.75)
2007 Projected Emissions (tons/year)	Heat input	mmBtu/yr	3,[illegible]	(7[illegible])
	Sulfur Dioxide	ton/yr	1,812.59	(410.52)
	Nitrogen Oxides	ton/yr	276.54	(62.08)
	Particulate Matter	ton/yr	13.84	(3.13)
	Particulate Matter - 10	ton/yr	9.84	(2.23)
	Carbon Monoxide	ton/yr	58.14	(13.15)
	Nonmethane VOCs	ton/yr	8.86	(2.00)
	Lead	ton/yr	0.02	(0.00)
	TOTAL EMISSION INCREASE	ton/yr		(493.15)
2008 Projected Emissions (tons/year)	Heat input	mmBtu/yr	4,682,486	346,534
	Sulfur Dioxide	ton/yr	2,404.23	178.13
	Nitrogen Oxides	ton/yr	363.56	26.94
	Particulate Matter	ton/yr	18.35	1.38
	Particulate Matter - 10	ton/yr	13.04	0.97
	Carbon Monoxide	ton/yr	76.09	5.70
	Nonmethane VOCs	ton/yr	11.70	0.87
	Lead	ton/yr	0.02	0.00
	TOTAL EMISSION INCREASE	ton/yr		213.97
2009 Projected Emissions (tons/year)	Heat input	mmBtu/yr	3,713,887	(621,557)
	Sulfur Dioxide	ton/yr	1,906.80	(319.30)
	Nitrogen Oxides	ton/yr	288.34	(48.28)
	Particulate Matter	ton/yr	14.54	(2.43)
	Particulate Matter - 10	ton/yr	10.34	(1.73)
	Carbon Monoxide	ton/yr	61.09	(10.27)
	Nonmethane VOCs	ton/yr	9.28	(1.56)
	Lead	ton/yr	0.02	(0.00)
	TOTAL EMISSION INCREASE	ton/yr		(382.03)
2010 Projected Emissions (tons/year)	Heat input	mmBtu/yr	2,488,454	(1,847,100)
	Sulfur Dioxide	ton/yr	1,377.70	(848.40)
	Nitrogen Oxides	ton/yr	193.21	(143.41)
	Particulate Matter	ton/yr	9.74	(7.23)
	Particulate Matter - 10	ton/yr	6.90	(5.14)
	Carbon Monoxide	ton/yr	40.92	(30.37)
	Nonmethane VOCs	ton/yr	6.22	(4.62)
	Lead	ton/yr	0.01	(0.01)
	TOTAL EMISSION INCREASE	ton/yr		(1,132.16)

TOTAL P.014

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EXHIBIT 4
TO DEFENDANTS' REPLY BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON THE 2002 NSR REFORM RULES

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAY 16 2005

Mr. John Tooley
Regional Plant Manager
NRG Oswego Harbor Power Operations Inc.
261 Washington Blvd.
Oswego, NY 13126-1751

Subject: Unit 5 Condenser Retubing Project

Dear Mr. Tooley:

The U.S. Environmental Protection Agency's Region 2 Office (EPA) has received your letter dated March 10, 2005 describing a retubing project planned for March 2005 at the primary condenser for Unit 5 of the Oswego Harbor Power Station. Your letter provided details of your assessment that this project is not subject to Prevention of Significant Deterioration (PSD) program requirements.

Based on your description, we believe the condenser retubing project (Project) represents a physical change at Unit 5's condenser, and thus it is appropriate that NRG conducted the analysis to determine whether the emissions increase will be significant. As you are aware, if a facility properly determines that a project is not a major modification as defined at 40 CFR § 52.21(b)(2)(i), then neither a permit nor a determination of nonapplicability from EPA is required before undertaking the project.

EPA notes that the projection of actual emissions indicates a significant increase in sulfur dioxide (SO_2) emissions may occur in 2008, however NRG has invoked the provision at 40 CFR § 52.21(b)(41)(ii)(c), to exclude this projected increase on the basis that it is unrelated to the Project. Based on the information provided in your letter, as well as a telephone conversation on April 20 with Tom Coates, EPA understands NRG's assertions to be as follows: (1) Unit 5 could have accommodated the increased demand anticipated by the NRG Power Marketing projections during the baseline period; (2) the projected emissions increase is not related to the Project because the inputs to the model included other factors such as anticipated fuel costs, and the Project was not a factor in these projections; (3) operation of Unit 5 has not been constrained in any way by the corroded state of the condenser; and (4) the new stainless steel tubes do not increase the efficiency of the condenser or Unit 5.

EPA has insufficient information to dispute or concur with these assertions. Further, based on NRG's assertions, NRG does not need, nor does EPA plan to issue a determination regarding this Project. Nevertheless, you state in your letter that NRG plans to monitor, record and report its emissions pursuant to 40 CFR §§ 52.21(r)(6)(iii) and (iv), beginning with a report

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covering emissions from approximately April 2005 to March 2006.[1] This source obligation outlined at 40 CFR § 52.21(r)(6), to provide certain documentation to EPA when emissions are excluded pursuant to section (b)(41)(ii), applies where there is a reasonable possibility that a project that is not projected to be part of a major modification may result in a significant emissions increase. Because NRG is asserting that 100 percent of the projected 178 ton increase in SO_2 emissions may be excluded pursuant to 40 CFR § 52.21(b)(41)(ii)(c), NRG should substantiate its above assertions at the time of its annual emissions reports submitted pursuant to 40 CFR §§ 52.21(r)(6)(iii) and (iv).

To adequately track Unit 5's post-change emissions, NRG should maintain records of fuel use, hours of operation, and fuel sulfur content. In compiling this information annually for reporting to EPA, NRG may exclude emissions increases that are caused by factors not related to the Project, such as emissions increases that NRG demonstrates are due to variations in control technology performance or fuel characteristics. In addition, when calculating emissions increases, NRG may exclude that portion of its emissions attributable to increased use at Unit 5 due to growth in electrical demand for the utility system as a whole since the baseline period. *See* 40 CFR § 52.21(b)(41)(ii)(c). NRG should demonstrate its basis for excluding any emissions by providing a clear justification for the exclusion in its annual reports.

EPA notes that NRG remains responsible for its determination that the Project is not subject to PSD review, and nothing in this letter constitutes any determination of nonapplicability or approval by EPA. EPA further notes that regardless of the applicability of this Project to PSD, NRG remains responsible for compliance with all other applicable federal, state and local air pollution regulations. EPA reserves all enforcement authorities under the Clean Air Act.

If you have any questions regarding this matter, please call me at (212) 637-4074 or Ms. Lauren Steele of my staff at (212) 637-3583.

Sincerely,

Frank Gin

for Steven C. Riva, Chief
Permitting Section
Air Programs Branch

[1] NRG predicts the change to be complete by April 2005, and anticipates the first report will cover the first 12 months of operation after the change is complete. Letter of March 10, 2005, at 5.

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bcc: L. Steele, 2DEPP-APB
J. Siegel, 2ORC-AB
K. Mangels, 2DECA-ACB
APB File

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